DRAWING AMENDMENTS

Enclosed is a new drawing designated as Fig. 2 to be added to the present application.

REMARKS

Applicant has carefully reviewed the Official Action dated May 4, 2007 for the above identified patent application.

At page 2 of the Official Action, the Examiner has objected to the drawings on the grounds that they do not illustrate every feature of the invention specified in the claims. More specifically, the Examiner states that the drawings do not illustrate both "...the combination of the thinner rolling embodiment operation in conjunction with the bending of the metal in a predetermined radius...".

In response to the drawing objection, Applicant has added new drawing Fig. 2 to this application. The new drawing figure illustrates the features of the invention, identified by the Examiner in the objection to the drawing, as recited in Claims 4 and 7 - 9. The new drawing is supported by the original specification starting at page 3, last paragraph and continuing onto page 4, and by original Claims 4 and 7 - 9 (since the original claims constitute original disclosure to this patent application).

New drawing Fig. 2 illustrates the apparatus disclosed and illustrated by Fig. 1 of PCT/SE02/01689, identified at page 3,

last paragraph of Applicant's specification. PCT/SE02/01689 corresponds to pending United States Serial No. 10/806,865, filed March 23, 2004, which was published as U.S. 2004/0173002 A1, on September 9, 2004. Thus, the disclosure of the published U.S. patent application has been properly incorporated by reference in the present application.

Fig. 2 illustrates the apparatus of Fig. 1 of the published U.S. patent application, which rolls the raised edges of the sheet metal plates thinner, as the first step in the method defined by Claims 4 and 7 - 9, and thereafter illustrates the apparatus of Fig. 1 of the present application, which performs the second step of the process (bending the sheet metal) as defined by method Claims 4 and 7 - 9.

Applicant respectfully submits that the addition of Fig. 2 to the present application does not add new matter since it is supported by the original disclosure of the present application, and that Fig. 2 overcomes the objections to the drawings raised by the Examiner in the Official Action. The specification has been amended to refer to and discuss newly added Fig. 2 of the drawing, where appropriate. The amended specification is supported by both the original disclosure of the present application, and the disclosure of published United States patent

application Serial No. 10/806,865 which has been incorporated by reference herein.

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At page 4 of the Official Action, Claims 4 and 7 - 9 have been rejected under 35 U.S.C. Section 112, second paragraph as being indefinite. The basis for this formal ground of rejection is that the Examiner states that the recitation in these claims of "either against the bottom or top thereof" is unclear. In response to this formal ground of rejection, the claims have been amended to clearly recite that the reference to the "bottom" or "top" refers to the raised edges of the roofing sheet.

Claims 6 and 9 have been cancelled. Claims 4 and 7 - 8 have been amended to replace the recitation "roll (15)" with "displaceable roll (16)". This revision to these claims is supported by the original specification, at page 1, last line through page 2, line 3. Thus, the revision to the form of Claims 4 and 7 - 8 to recite "displaceable roll (16)" conforms these claims to the disclosure of the original specification, and therefore does not add new matter to the present application.

At page 3, last paragraph of the Official Action, Claims 4 and 7 - 9 have been rejected under 35 U.S.C. Section 112, first

paragraph, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art, that the inventor at the time the application was filed, had possession of the claimed invention. More specifically, the Examiner states that the specification fails "...to provide clear details on first rolling thinner of the raised edges against the bottom or top thereof and than adjusting the roll against the metal to bend the metal...". Applicant respectfully disagrees with the Examiner's conclusion.

It is well established that a specification is directed to persons of ordinary skill in the art, and that a specification is sufficient and satisfies the requirements under 35 U.S.C. Section 112, first paragraph, if it enables a person having ordinary skill in the relevant art to practice the claimed invention without undue experimentation. See, for example, Wang Laboratories, Inc. v. Toshiba Corp., 26 USPQ 2d 1767 (Fed. Cir. 1993). In the instant case, the specification clearly discloses the step of adjusting the roll against the metal to bend the metal, as recited in Claims 4 and 7 - 8.

The step of the first rolling thinner the raised edges against the bottom or top thereof has also been fully disclosed in the original specification as a result of the incorporation by reference therein of Fig. 1 of PCT/SE02/01689, corresponding to

published United States patent application Serial No. 10/806,865, as identified above. Thus, both the specification of the present application (as amended herein based upon the incorporation by reference of the published United States patent application), and the addition of Fig. 2 to the drawings, clearly discloses the steps of the methods defined by Claims 4 and 7 (and the machine now defined by amended Claim 8) in a manner which will enable a person having ordinary skill in the relevant art to practice the invention defined by those claims without undue experimentation. Accordingly, Applicant respectfully submits that the specification and drawings, as amended herein, fully comply with 35 U.S.C. Section 112, first paragraph, in all respects.

* * *

At page 4 of the Official Action, Claims 1 - 3 and 5 - 6 have been rejected under 35 U.S.C. Section 102(b) as being anticipated by the Davi patent (U.S. Patent No. 5,187,959). At page 5 of the Official Action, Claims 4 and 7 - 9 have been rejected under 35 U.S.C. Section 103(a) as being obvious over a combination of the Buckwalter patent (U.S. Patent No. 3,339,392) in view of the Davi patent. For the reasons to be discussed below, Applicant respectfully submits that all pending claims, as amended herein, are allowable over the prior art applied in the Official Action.

Applicant initially notes that independent method Claim 1 has been revised to include the features of dependent Claim 3, and independent apparatus Claim 5 has been revised to include features corresponding with those recited in Claim 6. Claims 3, 6 and 9 have been cancelled, without prejudice. Dependent method Claim 8 has been amended to an apparatus claim, and depends from independent apparatus Claim 5.

The Davi patent discloses a three-point contact sensor. The Davi patent also mentions that the sensors can be contactless laser sensors. However, Davi does not teach or suggest a solution for using contactless sensors. On the contrary, the three-point sensor illustrated by the Davi patent automatically takes up the correct position perpendicular to the bend, and the three parallel laser sensors will not adjust automatically to such positions, and therefore can only normally be used for controlling a specific bend and must be repositioned to control another bend.

Contrary to the method and apparatus disclosed by Davi, Applicant has disclosed and claimed a method and apparatus employing a second degree polynomial for calculation and approximation. Accordingly, the direction of the parallel laser beams do not have to be directly perpendicular to the bend in order to result in a good approximation. Davi does not recognize

this functional advantage resulting directly from the methods and apparatus disclosed and claimed by Applicant.

Independent method Claim 1 and independent apparatus Claim 5 have now both been amended to expressly recite that in making the calculation, the bending radius between the measuring points is approximated by means of a second-degree polynomial. This aspect of Applicant's invention is neither taught or suggested by the Davi patent.

Independent Claims 1 and 5 (and dependent Claims 3 and 6 which have now been incorporated into Claims 1 and 5, respectively,) have been rejected as being anticipated by the Davi patent. It is well established that a rejection of a claim as being anticipated by a prior art reference requires the Patent & Trademark Office to establish a strict identity of invention between a single prior art reference and the rejected claim. Stated in other words, a rejection of a claim as being anticipated is improper unless a single applied prior art reference discloses all features of the rejected claim, as arranged in the claim. See, for example, Connell v. Sears, Roebuck & Co., 220 USPQ 193 (Fed. Cir. 1983).

In the instant case, Applicant respectfully submits that there is clearly no strict identity of invention between the

disclosure of the Davi patent, and the method and apparatus of independent Claims 1 and 5, as amended herein, because the Davi patent does not teach or suggest use of a second degree polynomial for approximating a bending radius between measuring points with regard to contactless sensors, as expressly recited in Claims 1 and 5. Thus, when Claims 1 and 5, as amended herein, are considered as a whole and in their entireties, these claims are clearly not anticipated by the Davi patent. Moreover, since the Davi patent does not suggest use of a second degree polynomial for approximating the bending radius between measuring points, but on the contrary, operates along a different principle as discussed above, independent Claims 1 and 5, as amended herein, are not obvious over the Davi patent when these claims are considered as a whole and in their entireties.

At page 4 of the Official Action, the Examiner states that the features of Claims 3 and 6 (which have now been incorporated into independent method and apparatus Claims 1 and 5) are inherently disclosed at Column 8 of the Davi specification. The Examiner then concludes that "...the calculations as defined by claims 3 and 6 are met by Davi." Applicant respectfully disagrees with the Examiner's conclusion, and submits that the disclosure at Column 8 of the Davi specification does not teach the specific features of the calculation now positively recited in independent Claims 1 and 5. The Official Action provides no

factual support or explanation as to why the Examiner considers these claimed features to be disclosed (either expressly or inherently) by the Davi patent.

In conclusion, Applicant respectfully submits that the Davi patent does not teach or suggest a solution for using contactless sensors, and does not employ a second-degree polynomial for approximating the bending radius between measuring points in the calculation of the bending radius, as is expressly recited in pending independent Claims 1 and 5. Thus, the methods and apparatus defined by independent Claims 1 and 5 do not require the direction of parallel laser beams to be directly perpendicular to a bend in order to result in an accurate calculation of the bending radius. On the contrary, the parallel laser sensors of Davi does not automatically take up the correct position perpendicular to a bend, and therefore must be repositioned from a first position controlling a specific bend to another position for controlling a different bend.

Applicant respectfully submits that pending independent Claims 1 and 5 are in condition for allowance. The remaining dependent claims, which depend directly or indirectly from Claims 1 or 5, are allowable, at least for the same reasons as parent independent Claims 1 and 5, respectively.

Applicant respectfully submits that this application is in condition for allowance, and favorable action is respectfully requested.

Respectfully submitted,

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